

**National Transportation Safety Board  
Washington, DC 20594**

**Brief of Accident**

**Adopted 12/06/2002**

DEN02LA086		07/31/2002		Fort Collins, CO		Aircraft Reg No. N5088K		Time (Local): 16:15 MDT					
Make/Model:		Cessna / 172N				Fatal		Serious		Minor/None			
Engine Make/Model:		Lycoming / O-320				Crew		0		0		1	
Aircraft Damage:		Substantial				Pass		0		0		0	
Number of Engines:		1											
Operating Certificate(s):		None											
Type of Flight Operation:		Instructional											
Reg. Flight Conducted Under:		Part 91: General Aviation											
Last Depart. Point:		Same as Accident/Incident Location				Condition of Light:		Day					
Destination:		Local Flight				Weather Info Src:		Weather Observation Facility					
Airport Proximity:		On Airport				Basic Weather:		Visual Conditions					
Airport Name:		Fort Collins Downtown				Lowest Ceiling:		None					
Runway Identification:		11				Visibility:		10.00 SM					
Runway Length/Width (Ft):		5300 / 48				Wind Dir/Speed:		150 / 005 Kts					
Runway Surface:		Asphalt				Temperature (°C):		37					
Runway Surface Condition:		Dry				Precip/Obscuration:		None / None					
Pilot-in-Command		Age: 53				Flight Time (Hours)							
Certificate(s)/Rating(s)						Total All Aircraft:		96					
Student						Last 90 Days:		53					
Instrument Ratings						Total Make/Model:		96					
None						Total Instrument Time:		UnK/Nr					

The student pilot had just finished practicing several soft field take offs and landings with an instructor and was on his first solo flight of the day. After taxiing to the end of runway, he pulled the yoke back all the way, and added full power. Following rotation, the airplane came straight up in a 45-degree incline. At approximately 20 feet in the air, the airplane drifted off to the right of the runway, struck the ground with its left wing tip, bounced up and then it struck the ground a second time. The ground impact collapsed and sheered off the nose landing gear, buckled the firewall, and bent the outboard 4 feet of the right wing spar.

Brief of Accident (Continued)

DEN02LA086				
File No. 12519	07/31/2002	Fort Collins, CO	Aircraft Reg No. N5088K	Time (Local): 16:15 MDT

---

Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) STALL/MUSH - ENCOUNTERED - PILOT IN COMMAND
3. (C) SOFT FIELD TAKEOFF/PROCEDURE - INADEQUATE - PILOT IN COMMAND
4. (F) LACK OF EXPERIENCE - PILOT IN COMMAND

-----

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

5. TERRAIN CONDITION - RUNWAY

Findings Legend: (C) = Cause, (F) = Factor

---

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.  
the student pilot's failure to maintain aircraft control and subsequent inadvertent stall/mush into terrain during a soft field take off.  
Contributing factors include the pilot's lack of experience and the high density altitude conditions.